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09/674,908	11/07/2000	Osamu Niwa	A33711 PCT U	5718

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EXAMINER

HON, SOW FUN

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/674,908

Applicant(s)

NIWA ET AL.

Examiner

Sow-Fun Hon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2, 5 and 7 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 2 and 7 is/are rejected.
7) ☒ Claim(s) 5 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

Withdrawn Rejections

1. The objection, 35 U.S.C. 112, 2nd rejection and 103(a) prior art rejection are withdrawn due to Applicant's amendment dated 01/24/05.

New Rejections

Claim Rejections - 35 USC § 112

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 2, 5, 7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. New parent claim 7 recites "layers laminated in the order of an outer polyamide resin layer, a polyolefin layer, a polyamide resin layer, an adhesive resin layer, a seal layer, and a metal deposited layer" and also that "the metal deposited layer is formed on at least part of the surface of the outer polyamide resin layer". However, example 4 in Applicant's specification (page 13) is the

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only example which has the metal deposited layer formed on the surface of the outer polyamide resin layer, and original claim 3 recites the same embodiment. This is a potential new matter situation.

5. Claims 2, 5, 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Parent claim 7 recites "layers laminated in the order of an outer polyamide resin layer, a polyolefin layer, a polyamide resin layer, an adhesive resin layer, a seal layer, and a metal deposited layer" and also that "the metal deposited layer is formed on at least part of the surface of the outer polyamide resin layer". Hence it is unclear from the claim whether the metal deposited layer is present on the surface of the seal layer as well as the outer polyamide resin layer, or just on the surface of the outer polyamide resin layer. Clarification or amendment is requested.

Claim Rejections – 35 USC § 103

6. New claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ramesh et al. (US 5,534,277) in view of Ogawa et al. (US 5,019,442).

Example 4 in Applicant's specification (page 13) is the only example which has the metal deposited layer formed on the surface of the outer polyamide resin layer, and original claim 3 recites the same embodiment. Hence the claim is interpreted with the position of the deposited metal layer in the laminate according to original claim 3.

Ramesh teaches a multilayer film comprising layers laminated in the order of an outer polyamide resin layer 14 (column 3, lines 40-45), a polyolefin layer 12 (column 4,

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lines 30-31), a polyamide resin layer 10 (column 3, lines 40-45). See Fig. 1 of Ramesh below.

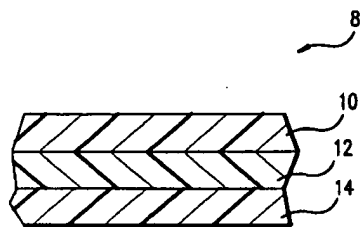


FIG. 1

Furthermore, Ramesh teaches an adhesive resin layer between the polyamide resin layer 10 and a seal layer [a seal(ant) layer adhered to the first layer 10 of polyamide via a polymeric adhesive] (column 10, lines 22-28), thus teaching a multilayer film comprising layers laminated in the order of an outer polyamide resin layer, a polyolefin layer, a polyamide resin layer, an adhesive resin layer and a seal layer.

Ramesh teaches that the polyamide resin layers each comprise a mixed resin layer of crystalline nylon (column 3, lines 40-45), the polyolefin layer comprises at least one member selected from the group consisting of a polyolefin and a polyolefin-based adhesive resin (polyolefin, ethylene acrylic acid copolymer) (column 4, lines 30-35), the seal layer comprises at least one member selected from the group consisting of LLDPE (column 7, lines 43-52), (EAO₂ is linear low density polyethylene) (column 6, lines 37-38), and LDPE (column 7, lines 1-5), and the adhesive resin layer comprises a grafted LLDPE (anhydride-grafted linear low density polyethylene) (column 6, lines 45-46).

Ramesh teaches that the multilayer film is used as a packaging film (column 1, lines 8-14). Ramesh fails to teach a metal deposited layer, prepared by vapor deposition, formed on at least a part of the surface of the outer polyamide resin layer.

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Ogawa teaches that metal-deposited films prepared by vapor deposition of a metal on a plastic film have been widely used as a packaging (wrapping) film due to the excellent gas barrier, light-shielding, adhesive strength and appearance properties (column 1, lines 1-15).

Therefore it would have been obvious to one of ordinary skill in the art to have provided a metal-deposited layer, prepared by vapor deposition, on at least a part of the surface of the outer polyamide resin layer of Ramesh, as taught by Ogawa, in order to obtain a multilayer packaging film with the desired gas barrier, light-shielding, adhesive strength and appearance properties.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ramesh in view of Ogawa as applied to claim 7 above, and further in view of Sadler (Derwent Abstract AU 8825700A).

Ramesh in view of Ogawa has been discussed above. Furthermore, Ramesh teaches that the mixed resin of crystalline nylon comprises a material which disrupts the crystallinity of the crystalline nylon (column 3, lines 40-45), but fails to teach that it is an amorphous nylon.

Sadler teaches that a polyamide mixture of 35-85 wt. % of crystalline nylon, which overlaps the claimed range of 70-95 wt. %, and 15-65 wt. % amorphous nylon, which overlaps the claimed range of 5 to 35 wt. %, (basic abstract) combines the high gas barrier properties and resistance to flex-cracking of crystalline polyamides with thermoformability and optical clarity of amorphous polyamides (use/advantage).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used a mixture of crystalline nylon and amorphous nylon in the mixed polyamide resin layer of crystalline nylon of Ramesh, as taught by Sadler, in order to obtain a multilayer film with the desired balance of high gas barrier properties and resistance to flex-cracking with thermoformability and optical clarity.

Regarding the intended use recitation of "for forming a vapor deposited balloon", if the body of a claim fully and intrinsically sets forth all of the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not considered a limitation and is of no significance to claim construction. See MPEP 2111.02 [R-2]. In the instant case, the composition of the layers of the multilayer film of Ramesh in view of Ogawa and Sadler meet the compositional limitations of the vapor deposited multilayered film of the claim. Thus the vapor deposited multilayered film of Ramesh in view of Ogawa and Sadler, can be used for forming a vapor deposited balloon.

Allowable Subject Matter

8. Claim 5 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The closest cited prior art of record, US 5,534,277, even in combination with US 5,019,442 and AU 8825700A, fails to teach or suggest a balloon comprising a vapor

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deposited multilayer film comprising layers laminated in the order of an outer polyamide resin layer, a polyolefin layer, a polyamide resin layer, an adhesive resin layer, a seal layer, and a metal deposited layer formed on at least a part of the surface of the outer polyamide resin layer, wherein the polyamide resin layers each comprise a mixed resin layer of crystalline nylon and/or amorphous nylon, the polyolefin layer comprises at least one member selected from the group consisting of a polyolefin and polyolefin-based adhesive resin, the adhesive resin layer comprises a grafted linear low density polyethylene, and the seal layer comprises at least one member selected from the group consisting of LLDPE and LDPE. None of the references teach a balloon formed from the vapor deposited multilayered film as recited above.

Response to Arguments

9. Applicant's arguments with respect to claims 2, 5 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (571)272-1492. The examiner can normally be reached Monday to Friday from 10:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached at (571)272-1498. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Hon.
Sow-Fun Hon
05/11/05

[Signature]
HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

5/13/05